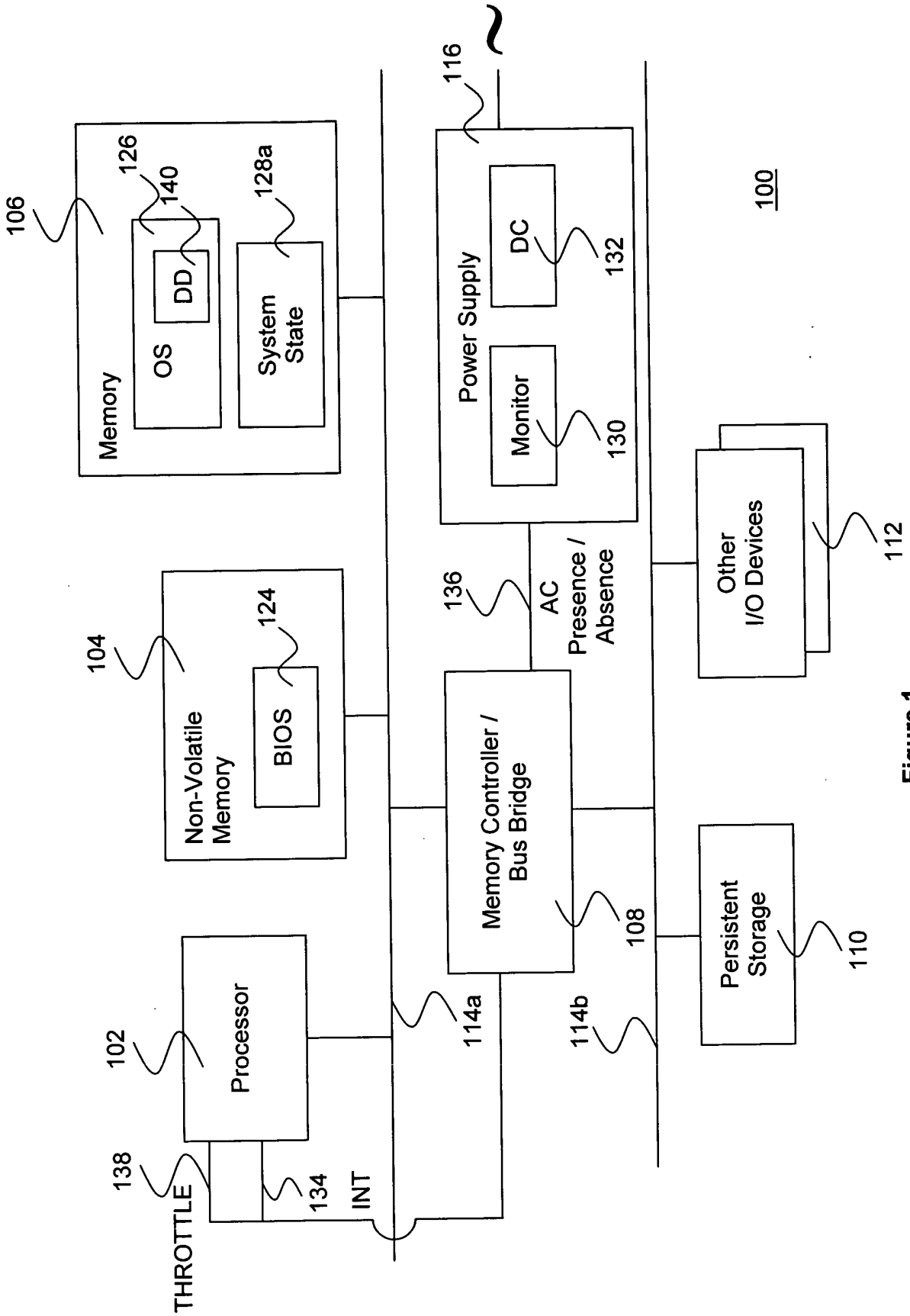
100
106
Memory
126
140
OS
DD
128a
System State
116
Power Supply
DC
132
Monitor
130
104
Non-Volatile Memory
124
BIOS
136
AC Presence / Absence
Other I/O Devices
112
Memory Controller / Bus Bridge
108
Persistent Storage
110
102
Processor
114a
114b
138
THROTTLE
134
INT

Figure 1

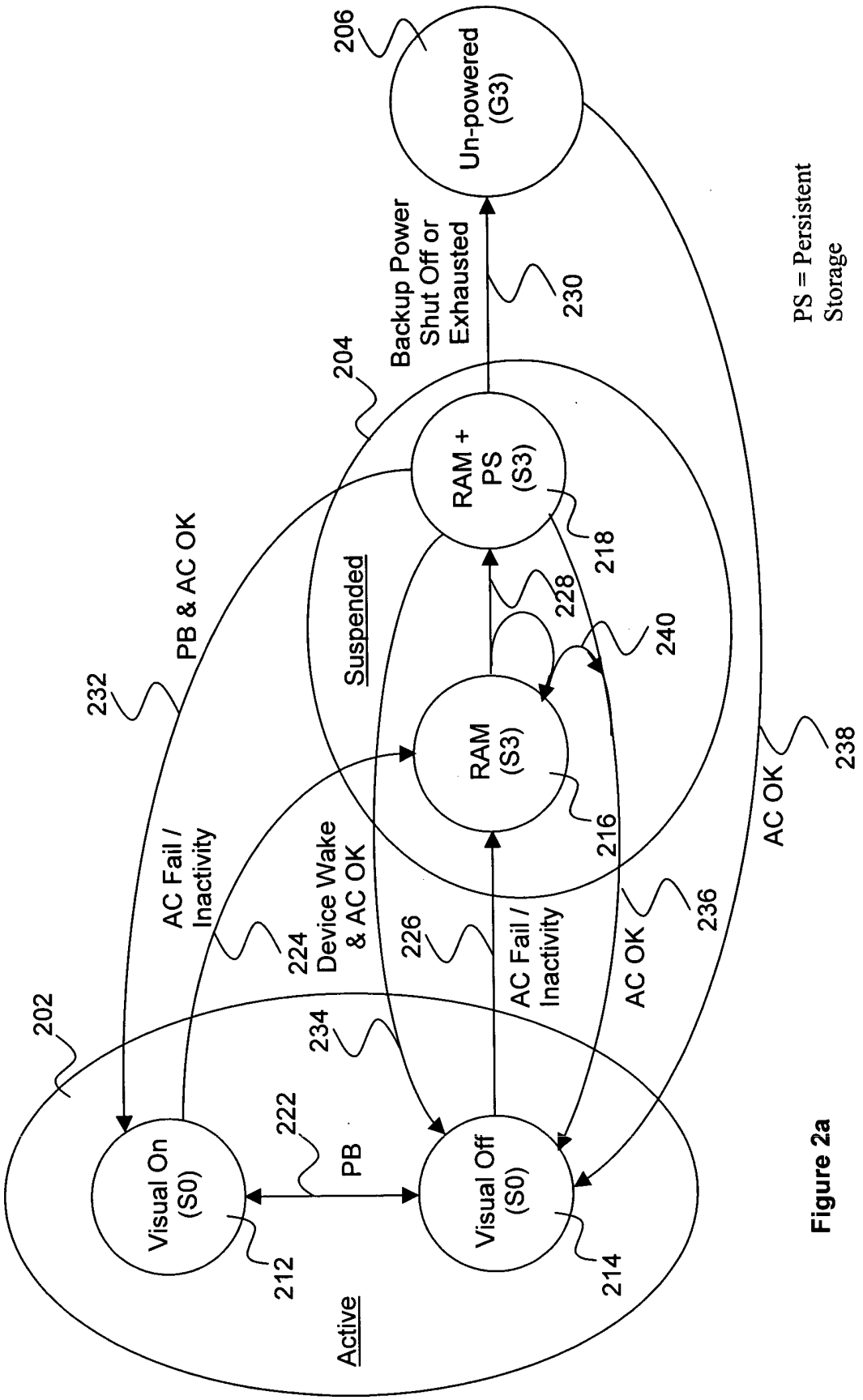
206
Un-powered (G3)
Backup Power Shut Off or Exhausted
230
204
RAM + PS (S3)
218
228
240
Suspended
232
PB & AC OK
RAM (S3)
216
AC Fail / Inactivity
224
Device Wake & AC OK
226
AC Fail / Inactivity
AC OK
236
AC OK
238
202
234
222
PB
Visual On (S0)
212
Visual Off (S0)
214
Active
PS = Persistent Storage

Figure 2a

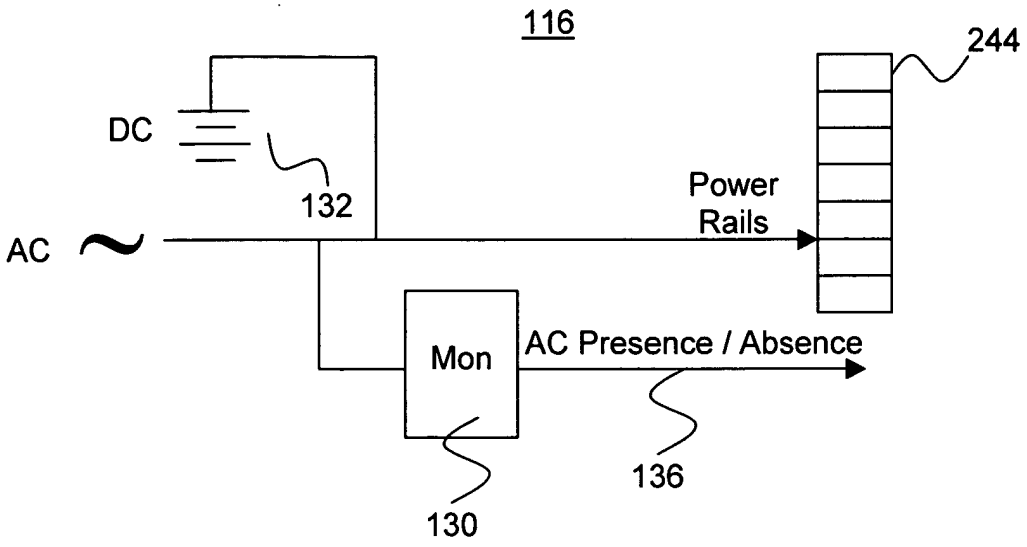

Figure 2b

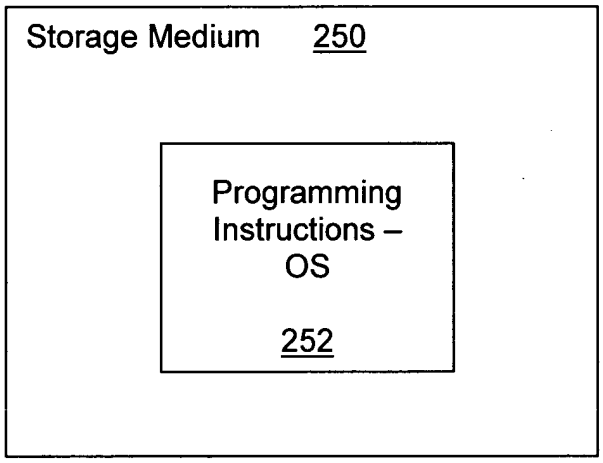

Figure 2c

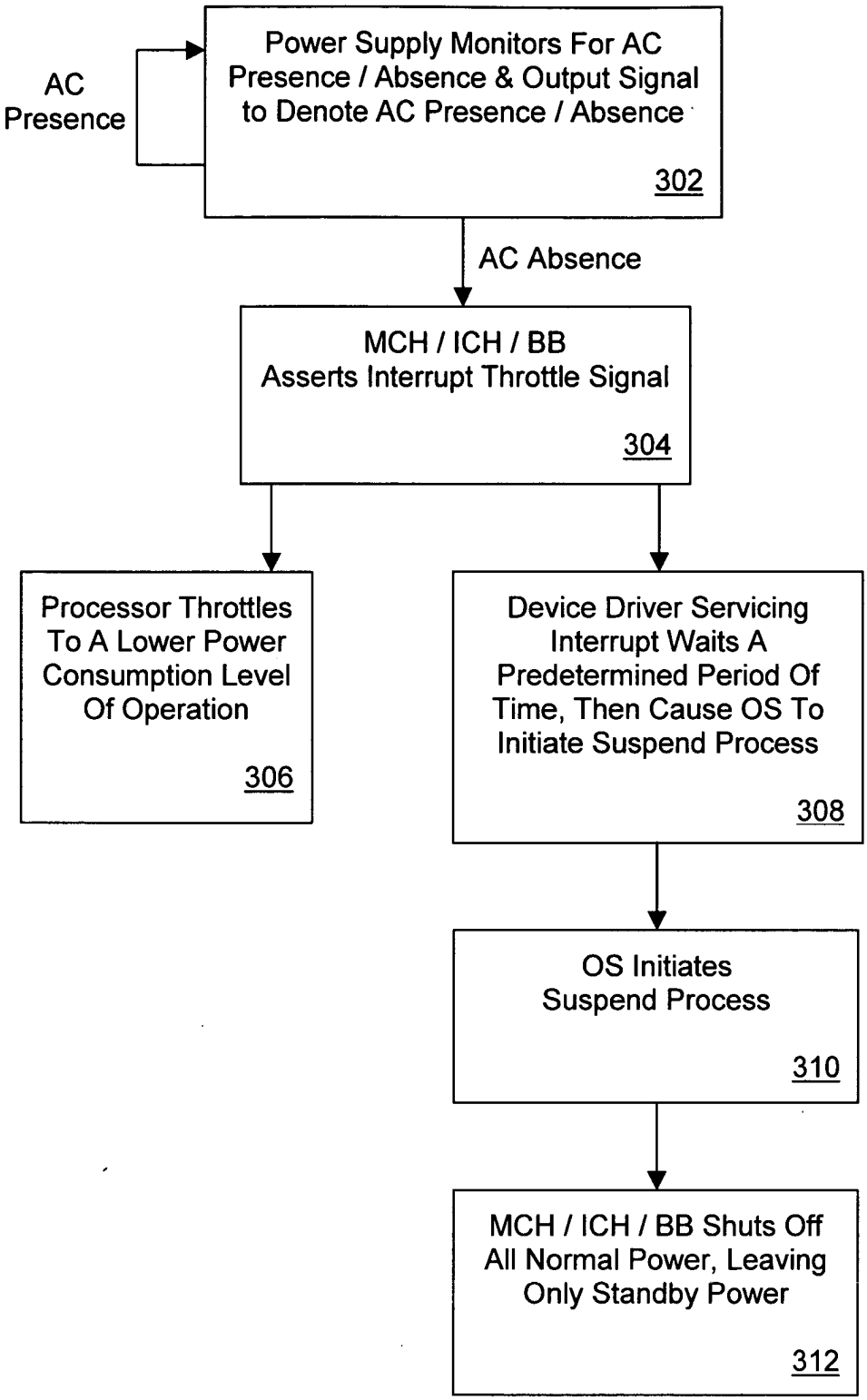
AC Presence
Power Supply Monitors For AC Presence / Absence & Output Signal to Denote AC Presence / Absence
302
AC Absence
MCH / ICH / BB Asserts Interrupt Throttle Signal
304
Processor Throttles To A Lower Power Consumption Level Of Operation
306
Device Driver Servicing Interrupt Waits A Predetermined Period Of Time, Then Cause OS To Initiate Suspend Process
308
OS Initiates Suspend Process
310
MCH / ICH / BB Shuts Off All Normal Power, Leaving Only Standby Power
312

Figure 3

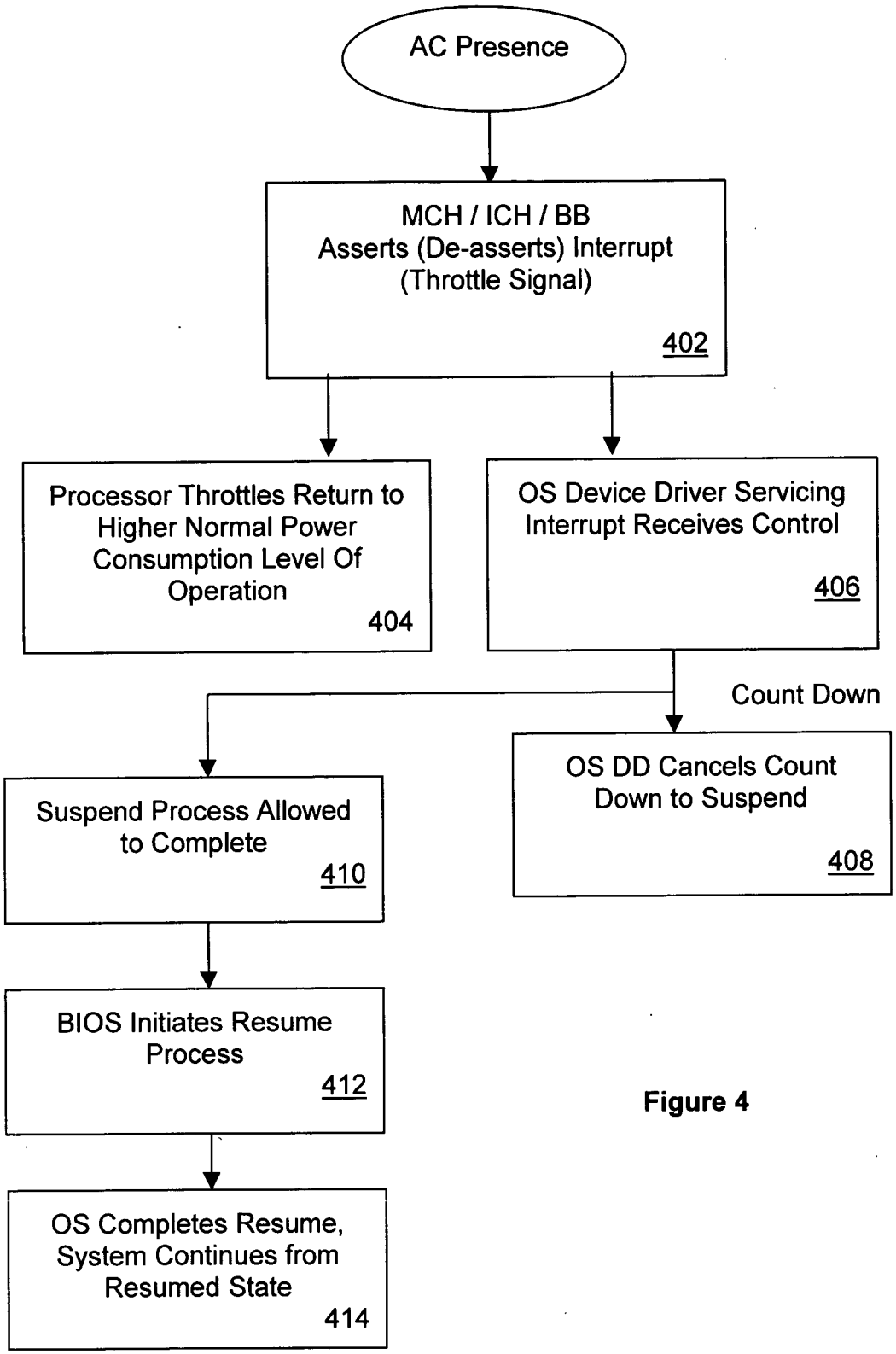
AC Presence
MCH / ICH / BB
Asserts (De-asserts) Interrupt
(Throttle Signal)
402
Processor Throttles Return to Higher Normal Power Consumption Level Of Operation
404
OS Device Driver Servicing Interrupt Receives Control
406
Count Down
Suspend Process Allowed to Complete
410
OS DD Cancels Count Down to Suspend
408
BIOS Initiates Resume Process
412
OS Completes Resume, System Continues from Resumed State
414

Figure 4